

REMARKS

Claims 23-34 are pending in the above-identified application. Claims 1-9 are withdrawn from consideration. Claims 23-34 were rejected. With this Amendment, claim 23 was amended and claims 29-34 were cancelled. Accordingly, claims 23-28 are at issue in the above-identified application.

35 U.S.C. § 102 Anticipation Rejection of Claims and 35 U.S.C. § 103 Obviousness

Rejection of Claims

Claims 23-25, 29-31 & 33-34 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Isoyama et al.* (U.S. Patent No. 6,093,503). Claims 27, 28 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Isoyama et al.* (U.S. Patent No. 6,093,503) as applied to claims 23 & 29 above, in view of *Miyasaka* (U.S. Patent No. 5,869,208). Applicants respectfully traverse these rejections.

Claim 23 recites a method of producing a positive electrode active material for a non-aqueous electrolyte cell, comprising mixing a first ingredient with a lithium composite manganese oxide, molding the mixture under pressure, sintering the mixture at a temperature *not lower than 600°C and not higher than 850°C*, wherein the positive electrode active material comprises lithium composite manganese oxide having a spinel structure whose primary particle diameter is *not less than 0.05 μm and not greater than 10 μm*, forms an aggregate, and whose specific surface area measured by the BET method is not less than 0.2 m²/g and not greater than 2 m²/g, and wherein the lithium composite manganese active material is expressed by a general formula $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$, wherein $.09 \leq x \leq 1.4$; $0 < y < .3$; and M is one or more materials selected from the group consisting of Ti, V, Cr, Fe, Co, Ni, and Al.

Isoyama et al. teaches a non-aqueous electrolyte lithium secondary cell having a positive active material which comprises a metallic compound powder capable of occluding or releasing lithium, comprising a single crystal or an aggregate of a plurality of single crystals and having a particle diameter in the range from 1 to 20 μm with the single crystal having a grain diameter in the range of from 0.1 to 20 μm . (See *Isoyama et al.*, column 2, lines 12-20). *Isoyama et al.* does not teach a positive electrode active material comprising lithium composite manganese oxide having a spinal structure whose primary particle diameter is *not less than 0.05 μm and not greater than 10 μm* , since a range of 1 to 20 μm does not teach or suggest a range that is *not less than 0.05 μm and not greater than 10 μm* , since the range of 1 to 20 μm clearly suggests a primary particle diameter greater than 10 μm . Additionally, *Isoyama et al.* teaches centering a mixture at a temperature in the range of from 300 to 1200°C. However, such a range does not teach or suggest centering a mixture at a temperature *not lower than 600°C and not higher than 850°C*, since the range of 300°C to 1200°C clearly suggests a centering temperature that is lower than 600°C and higher than 850°C. As a result, Applicants believe that since the primary particle diameters taught within *Isoyama et al.* and the temperature range at which the mixture is centered within *Isoyama et al.* differs from that range and that particle diameters taught within claim 23, and as a result, it would *not* be an inherent property of the cathode material to have a specific surface area measured by the BET method that is not less than 0.2 m^2/g and not greater than 2 m^2/g , as recited in claim 23.

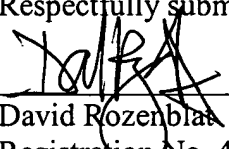
Finally, *Isoyama et al.* does not teach a positive electrode active material comprising lithium composite manganese oxide, wherein the lithium composite manganese active material is expressed by a general formula $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$, wherein $.09 \leq x \leq 1.4$; $0 < y < .3$; and M is one or

more materials selected from the group consisting of Ti, V, Cr, Fe, Co, Ni, and Al. Specifically, *Isoyama et al.* fails to teach a lithium composite manganese active material expressed by the above-stated formula wherein M is one or more materials selected from the group consisting of Ti, V, Cr, Fe, Co, Ni, and Al. Accordingly, Applicants submit that the claimed invention is not anticipated by nor obvious over the applied references either alone or in combination.

Withdrawal of these grounds of rejection is respectfully requested.

In view of the foregoing, Applicant submits that the application is in condition for allowance. Notice to that effect is requested.

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